rather belongs to the so-called Silico-Flagellatæ. I have found this same form in California and in the Mediterranean.

EXPLANATION OF PLATE XVI.

Figs. 1, 2. *Chætoceros incurvus*, Bail. Endocysts.
Figs. 3-7. *Chætoceros chinchæ*, Mer. Endocysts. (Fig. 6 in a somewhat oblique position; fig. 7 in profile.)
Fig. 8. *Skeletonema costatum*, var. *spiralis*, Mer.
Figs. 9, 10. Intermediate forms between *Biddulphia* (*Triceratium*) *alternans*, Bail., and *varietas variabilis*, Brightw. The puncta are not represented.
Figs. 11, 12. *Asteromphalus malleus* (*malleiformis*), var. *pacifica*, Mer. $\frac{900}{1}$.
Fig. 13. *Asteromphalus malleus* (*malleiformis*), Wallich, reproducing the figure of Wallich. $\frac{400}{1}$.
Fig. 14. *Navicula Hennedyi*, var. *subrostrata*, Mer.
Fig. 15. Another variety of *N. Hennedyi* from Tahiti.
Figs. 16-21. *Spermatogonia antiqua*, Leud. & Fortm.

LXVI.—*Some new African Theraphosoid Spiders in the British Museum.* By R. I. POCOCK.

Family **Theraphosidæ.**

Subfamily *EUMENOPHORINÆ*, Poc.

Genus HYSTEROCRATES, Sim.

A few weeks ago the Trustees of the British Museum acquired by purchase seven large Theraphosoid spiders which were captured on the island of St. Thomas in the Gulf of Guinea, and were offered to the British Museum under the name *Selenocosmia Greeffi* of Karsch. Who may be responsible for the identification I know not, but examination showed the specimens to be referable to three perfectly distinct species, neither of which is identical with the species described by Karsch, if any reliance is to be placed on the description of the latter.

The species may be described as follows:—

Hysterocrates didymus, sp. n.

? *Phoneyusa Greeffi* (Karsch), Simon, Hist. Nat. Araignées, i. p. 153 (1892).

♀.—*Colour.* Integument deep blackish brown, hairy clothing a rich ruddy olive-brown, with paler tips to the segments of the legs; legs without distinct pale lines; carapace, abdomen, and femora more sooty than the remaining segments of the legs.

Carapace normal in form, shorter than patella and tibia of fourth or of first leg, and than protarsus and tarsus of fourth, and than patella, tibia, and tarsus of palp; its width subequal to or a little less than distance between ocular tubercle and posterior emargination, equal to or slightly exceeding femur of fourth leg, less than femur and patella of third leg; no perceptible transverse groove in front of fovea.

Mandibles tubercular in front.

Legs 4, 1, 2, 3 in length, fourth exceeding the first by the length of its tarsus; fourth leg not in any sense thickened, the height of the femur not quite a third of its length (7 : 23·5); patella and tibia narrower than femur, patella a little thicker and higher than tibia; tibia cylindrical, about three times as long as high or wide (18 : 5·5); length of upperside of patella more than twice its height or width.

Palp with tarsus tumid at base, being proximally higher and wider than tibia (woodcut, fig. *b*, p. 493).

Measurements in millimetres.—Total length 58; carapace 28, its width 25; length of first leg 73, of second 62, of third 60, of fourth 84; patella and tibia of first 29, of fourth 30; protarsus and tarsus of fourth 31, of first 22.

Loc. Island of St. Thomas in the Gulf of Guinea (*Mocquerys coll.*).

This species is probably the same as that determined by Simon as *Phoneyusa Greeffi*, Karsch, which, according to Simon, has the tarsus of the palp tumid above at the base. Karsch's description contains nothing to justify this statement, no special modification of this segment being mentioned. Since, moreover, the length of the legs in *P. Greeffi* is, according to the description, different from that of the legs in the form here described, I am compelled to regard the two as specifically distinct.

Hysterocrates scepticus, sp. n.

♀.—In appearance and structure closely resembling the preceding, but with the tarsus of the palp normal and the legs shorter as compared with the carapace, the latter being longer than the patella and tibia of first or fourth legs.

Most nearly allied to *H. hercules* [*], Poc., from Jebba, up the Niger (P. Z. S. 1899, p. 844), and like that species in presenting a shallow transverse groove in front of the fovea, but certainly differing in the much greater inequality in length between the first and fourth legs. In *H. hercules* the first leg falls short of the fourth by nearly half the length of the tarsus of the fourth, whereas in *H. scepticus* it falls short by more than the length of the tarsus; the fourth leg in *H. hercules* is exceptionally short, its patella and tibia being less than those of the first.

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[*] In the description of this species the carapace stands as 34 millim. long. Including the posterior epimeral piece (which, consistently, should be included), the length is 35·5.

Measurements in millimetres.—Total length 63; length of carapace 32, its width 27; first leg 74·5, second 63, third 60, fourth 86; patella and tibia of first leg 30, of fourth 31; tarsus and protarsus of fourth 31; femur of fourth 24·5, its height 7; tibia 17·5, its width 5.

Loc. Island of St. Thomas in the Gulf of Guinea (*Mocquerys coll.*).

Hysterocrates apostolicus, sp. n.

♀.—Resembling *H. scepticus* in having the tarsus of the palp normal, but distinguishable by the much greater length and strength of the fourth leg.

Fourth leg strong, rather thicker than the first, the femur three times as long as high (22 : 7), the tibia a little less than three times as long as wide (16 : 5·5); height of tibia equal to that of patella; the patella and tibia or protarsus and tarsus are very noticeably longer than the carapace, the whole limb surpassing the first leg in length by its tarsus and one third of its protarsus.

Carapace about equal to patella and tibia of first leg and to patella, tibia, and tarsus of palp; no transverse groove in front of the fovea.

Measurements in millimetres.—Total length 51; carapace 25·5, its width 22; length of first leg 62·5, of second 53, of third 52, of fourth 79; patella and tibia of first 25, of fourth 28; protarsus and tarsus of fourth 28·5.

Loc. Island of St. Thomas in the Gulf of Guinea (*Mocquerys coll.*).

Of the species that occur on the mainland, *H. apostolicus* approaches *H. gigas*, Poc. (P. Z. S. 1897, p. 762, and 1899, p. 845), from the Cameroons, and *H. laticeps*, Poc. (*op. cit.*), from Old Calabar. From the former it may be recognized by its broader carapace and by having the carapace shorter instead of longer than the patella and tibia or protarsus and tarsus of the fourth leg; from the latter by having the patella and tibia of the fourth greater than of the first leg instead of equal, and by the fourth leg exceeding the first by more than its tarsus in length instead of by less than its tarsus.

The only species of this group previously recorded from St. Thomas is that described by Karsch as *Selenocosmia Greeffi*, the generic position of which is still a little doubtful. In his original description (SB. Ges. Naturwiss. Marburg, 1884, p. 60) Karsch writes, when describing the legs, "Die Metatarsen der beiden Hinterpaare an der Spitze unterhalb mit . . . Scopula"; whereas subsequently (Berl. ent. Zeit. 1886, p. 83) he says "Scopula an Metatarsus iv. fast hart bis zur Basis des Gliedes reichend." These statements clearly involve either an error of identification, the author confounding two distinct genera as one species, or of observation. Simon has assumed the latter to be the case, and, following him, I have on the strength of the assumption referred *S. Greeffi* to the genus *Hysterocrates*. If, however, as is possible, the specimens that Karsch first described as *S. Greeffi* have the scopula on the fourth protarsus confined to the apex of the segment the species will fall no doubt into *Phoneyusa*.

Assuming that it falls into *Hysterocrates*, the known species from the island of St. Thomas may be tabulated as follows:—

a. Legs short; first leg just exceeding twice the length of the carapace (62 : 30); fourth leg only twice and one sixth the length of the carapace (according to Karsch). *Greeffi*.
b. Legs longer; first leg[*] not less than twice and one third the length of the carapace; fourth leg not less than twice and two thirds the length of the carapace.
  a^1. Tarsus of palp swollen at base, wider and higher than tibia.................................... *didymus*.
  b^1. Tarsus of palp normally cylindrical, not wider than tibia.
    a^2. Fourth leg not thickened; carapace a little longer than its patella and tibia or protarsus and tarsus.. *scepticus*.
    b^2. Fourth leg a little thickened; carapace considerably shorter than its patella and tibia and protarsus and tarsus .... *apostolicus*.

CITHARISCHIUS, gen. nov.

Resembling *Phoneyusa*, Karsch (with which, pending a re-examination of the types, I provisionally include *Harpaxotheria*, Sim., and *Pelinobius*, Karsch), in the restriction of the

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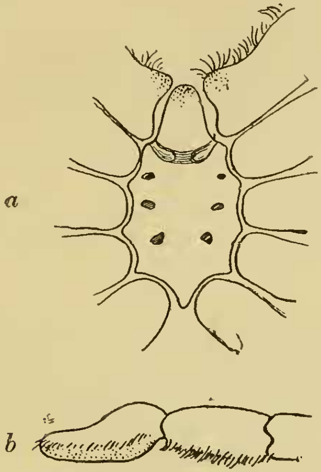
[*] The legs are here measured from the base of the femur. Karsch's measurements may contain a greater number of segments, but cannot contain a smaller. I have assumed that they contain the same. If they contain a greater number of segments, the shortness of the legs in *Greeffi* is even greater than here represented.

scopula of the fourth protarsus to the apical third of the segment, but distinguishable from all the known genera of the subfamily by the size and peculiar shape of the labium, which is as long as half the length of the sternum, has the form of a truncated cone, being so much narrowed anteriorly that its apical width is only half the basal width, the apex itself being rounded and not transversely truncated (woodcut, fig. *a*). Moreover the third and fourth legs are much stouter than the first and second.

Type *Citharischius Crawshayi*, sp. n.



a.—Citharischius Crawshayi, gen. et sp. n. Labium and sternum.
b.—Hysterocrates didymus, sp. n. Extremity of palpus, ♀.

Citharischius Crawshayi, sp. n.

♀.—*Colour.* Integument reddish brown, hairy clothing rusty red, shining with silky lustre, and brighter in tint on the distal segments of the legs than on the femora, carapace, and abdomen.

Carapace much longer than wide, the width less than the distance between the ocular tubercle and the posterior median emargination; length equal to that of patella, tibia, and half the protarsus of first leg, exceeding patella, tibia, and tarsus of palp, just exceeding patella and tibia of fourth leg, but barely equal to protarsus and tarsus of fourth.

Legs 4, 1, 2, 3 in length: third and fourth much more robust than first and second, first a little more than twice as long as the carapace; second and third subequal, less than twice as long as the carapace, fourth more than twice and a half as long; first leg falling short of fourth by the tarsus and one fourth of the protarsus of the latter; no spines on legs except at apices of protarsi beneath; femur of fourth considerably less than three times as long as high (23 : 9); tibia about as wide as high, less than three times as long as high (16½ : 6); patella rather more than twice as long as high (15 : 6½); the inner side of the patella, tibia, protarsus, and tarsus pseudoscopulate—that is to say, the hairs are short, erect, close-set, and equal in length like those of a mole's skin; on the protarsus this peculiar modification of the hairy clothing extends well on to the upper and underside of the segment.

Measurements in millimetres.—Total length 52; length of carapace 33, its width 25·5; length of palpus 47, of first leg 69, of second leg 64, of third leg 63, of fourth leg 85; patella and tibia of first 27, of fourth 31·5.

Loc. Kinani, British East Africa.

A single female specimen, collected and presented, together with a male of *Phoneyusa Bettoni*, Pocock, by Mr. Richard Crawshay.

The distinctive features of the undoubted genera of Eumenophorinæ, a subfamily of Theraphosidæ characterized by the presence of a remarkable stridulating-organ between the basal segments of the palpus and first leg (an organ described in P. Z. S. 1897, p. 772, and figured in the 'Zoologist,' 1898, pp. 14–21), may be tabulated as below:—

- *a.* Scopula on fourth protarsus extending almost to base of segment.
  - a^1. Fovea of carapace large and wide .... *Loxomphalia.*
  - b^1. Fovea of carapace small, crescentic .... *Hysterocrates.*
- *b.* Scopula on fourth protarsus confined to distal third of segment.
  - a^2. Tarsal scopula of fourth leg divided by a broad band of setæ.............................. *Eumenophorus.*
  - b^2. Tarsal scopula of fourth leg undivided.
    - a^3. Labium very long, conical, half the length of the sternum: fourth leg much thicker than first .... *Citharischius.*
    - b^3. Labium less than half the length of sternum; fourth leg not thicker than first.
      - a^4. Anterior tibia of male with spine-tipped spur .... *Monocentropus.*
      - b^4. Anterior tibia of male unarmed.
        - a^5. Fovea large, straight .... *Anoploscelus.*
        - b^5. Fovea small, crescentically procurved .. *Phoneyusa.*